



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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SERIAL NUMBER	FILING DATE	NILSSEN FIRST NAMED APPLICANT	0	ATTORNEY DOCKET NO.

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BEHAI JR EXAMINER

ART. UNIT	PAPER NUMBER
53	

DATE MAILED: 04/15/87

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined  Responsive to communication filed on 4-21-87  This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1.  Notice of References Cited by Examiner, PTO-892. 2.  Notice re Patent Drawing, PTO-948.  
3.  Notice of Art Cited by Applicant, PTO-1449 4.  Notice of informal Patent Application, Form PTO-152  
5.  Information on How to Effect Drawing Changes, PTO-1474 6.

Part II SUMMARY OF ACTION

1.  Claims 139 - 144 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2.  Claims 130 - 139 have been cancelled.

3.  Claims 139, 140 + 142 are allowed.

4.  Claims 141, 143 + 144 are rejected.

5.  Claims \_\_\_\_\_ are objected to.

6.  Claims \_\_\_\_\_ are subject to restriction or election requirement.

7.  This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.

8.  Allowable subject matter having been indicated, formal drawings are required in response to this Office action.

9.  The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are  acceptable;  
 not acceptable (see explanation).

10.  The  proposed drawing correction and/or the  proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_,  
has (have) been  approved by the examiner.  disapproved by the examiner (see explanation).

11.  The proposed drawing correction, filed \_\_\_\_\_, has been  approved.  disapproved (see explanation). However,  
the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are  
corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO  
EFFECT DRAWING CHANGES", PTO-1474.

12.  Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has  been received  not been received

been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13.  Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in  
accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14.  Other

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As to applicant's request for a refund in connection with fees associated with the Notice of Appeal and the Appeal Brief, applicant is advised to address a "Request for Refund," Refund Section, Finance Branch, Patent and Trademark Office. The examiner lacks authority to make the determination whether or not a refund is due.

Claim 141 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In essence the claim appears to be incomplete, subparagraph iii being missing from the last sub-paragraph.

Applicant is advised to keep a clear patentable line of demarkation between the claims of this case and co-pending application Ser. No. 929004, so as to avoid any issue of obvious type double patenting. This is especially <sup>the</sup> time of claims 143 and 144 which essentially differ from claims 10-12 of the referenced application by a rectifier means source for a battery. This expedient is age old and obvious causing the claims to overlap.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

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ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 143 and 144 are rejected under 35 U.S.C. 103 as being unpatentable over Walker in view of Pintell, cited in earlier progenitus cases.

Walker discloses a DC source 10, a square wave inverter 12, and a series resonant circuit LC connected to the output of square wave oscillator 12. Col. 2, lines 57 and 58 teach that the source of direct current power 10 may be a rectifier. A lamp load 20 is connected in parallel with capacitor C to receive a sinusoidal voltage developed by capacitor C.

The claims differ from Walker by calling for a specific self-oscillating inverter having saturable inductor means associated with the LC circuit the feedback path.

Pintell in figure 6 discloses a self-oscillating inverter of the type claimed. The inverter includes first and second transistors 616' 616" LC series circuit 616, 617, and feedback means 620, 621, 622' and 622," including a saturable inductor means 620 to co-determine the frequency of the inverter.

A load L is connected in series with the LC circuit 616 and 617, thereby drawing a sinusoidal current through it. Where the load L is linear, a sinusoidal voltage will also appear across load terminals defined

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by the right hand side of inductor 617 and the top of primary winding 621. Column 1 of Pintell suggests that the various inverter embodiments for generating sinusoidal waves are highly efficient.

Thus it would have been obvious to use Pintell's inverter of figure 6 in the generally disclosed square wave oscillator configuration shown on the front page of Walker. Where a sinusoidal load voltage is required, it would have been obvious to connect the load across capacitor C as in Walker. Where a sinusoidal current was desired through ~~the~~ the load, it would have been obvious to connect it as in Pintell. Since both of these expedients are known, the claimed subject matter viewed as a whole would have been obvious.

Alternatively, the claims would have been obvious over Pintell in view of Walker.

Except for the claimed rectifier means serving as a DC source and the <sup>load</sup> connected across the series resonant capacitor to develop a sinusoidal voltage there across, the claims are anticipated by Figure 6 of Pintell.

But Walker teaches using a rectifier for a DC source. Thus this provision is an obvious provision.

And whether a load in combination with a series resonant circuit requires a sinusoidal current or a sinusoidal voltage is determined by the peculiarities of the load itself. As for the general proposition of

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placing a load in series with the circuit to derive a sinusoidal load current, as shown by Pintell, or in parallel with the capacitor of the LC circuit to derive a sinusoidal AC voltage, as shown by Walker, this would have been obvious to one skilled in the art having both references before him and having a knowledge of basic electronic circuits. Where, as here, a sinusoidal load voltage was required, it would have been obvious to place load L of Pintell in parallel rather than in series with capacitor 616, as suggested by Walker.

Applicant's arguments filed April 21, 1987 have been fully considered but they are not deemed to be persuasive.

As to sub-paragraph d on page 6 of the Remarks, and the sub-pargraph following it, it suffices to say that Walker teaches the feature of a load connected in parallel with the tank capacitor of an LC series resonant circuit.

Claims 139, 140 and 140 are allowable over the prior art of record.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, THIS ACTION IS MADE FINAL. See MPEP 706.0/(a).

Applicant is reminded of the extension of time policy set forth in 37 CFR 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE

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DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to William H. Beha at telephone number (703) 557-5052.

Beha/ds

703/557-5052

6/10/87

*William H. Beha*

WILLIAM H. BEHA, JR.  
SENIOR EXAMINER  
GROUP ART UNIT 212